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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/751,391	05/21/2007	Julian Wray West	THINK-006AUS	1904

22494 7590 12/02/2016

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SUITE 301A
354A TURNPIKE STREET
CANTON, MA 02021-2714

EXAMINER
GOODCHILD, WILLIAM J

ART UNIT	PAPER NUMBER
2433	

NOTIFICATION DATE	DELIVERY MODE
12/02/2016	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JULIAN WRAY WEST, JASON PAUL JEFFORDS, DARRYL DIETZ, and RAJESH K. MISHRA

Appeal 2015-008169
Application 11/751,391
Technology Center 2400

Before JOSEPH L. DIXON, JAMES R. HUGHES, and ERIC S. FRAHM, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 2, 4–13, 15–24, 26–31, 33–47, and 49–63. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The invention relates to selecting routes through a network based on the Quality of Service (QoS) associated with the communications sent through the network (Spec. 1:12–15). Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method for affecting routing of a communication from a first computer system, through a network, to a second computer system, the method comprising:
>
> identifying a location of a fault on the network by inference from a topology of the network and communications regarding, or through, devices on the network that are not subject to the fault and that border the fault, wherein the fault is on a segment of the network, and wherein the communications are from the first computer system or the second computer system, the first computer system and the second computer system being endpoints on the network and being different from the devices on the network that are not subject to the fault and that border the fault;
>
> determining whether the route through the network meets a metric, the metric being one of plural metrics that is selected based on content of the communication; and
>
> assigning an output address of the first computer system and an input address of the second computer system, the output address of the first computer system and the input address of the second computer system corresponding to a route through the network that avoids the segment of the network containing the fault; and that meets the metric.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Aggarwal	US 6,154,463	Nov. 28, 2000
Wall	US 2003/0142633 A1	July 31, 2003
Hares	US 2005/0102414 A1	May 12, 2005
Wrenn	US 2005/0243817 A1	Nov. 3, 2005

REJECTIONS

The Examiner made the following rejections:

Claims 1, 2, 4–13, 15–24, 27, 29–31, 33–38, 40, 42–44, 49–57, 59, and 61–63 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wrenn, Wall, and Hares.

Claims 26, 28, 39, 41, 45–47, 58, and 60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wrenn, Wall, Hares, and Aggarwal.

ANALYSIS

Appellants contend the combination of Wrenn, Wall, and Hares fails to teach "determining whether the route through the network meets a metric, the metric being one of plural metrics that is selected based on content of the communication," as recited in claim 1 (App. Br. 10–13). Appellants also contend the Examiner's combination is based on a hindsight reconstruction and would not have been obvious to a person of ordinary skill in the art (App. Br. 14). We disagree with Appellants.

Wrenn describes a system for message routing in a network with layers analogous to the TCP/IP protocol layering scheme (*see* Wrenn, Abstract; ¶ 51). Regarding route-finding, Wrenn teaches:

> As an adjunct to the routing process, routing layer 230 monitors the quality of each route. The resulting route quality is used to select routes for outgoing transmissions to avoid routes that are unreliable, congested, or slow. . . . [T]he routing layer's use of route quality measurements and other information to select routes is described herein.

(Wrenn, ¶ 56).

Hares describes a system for maintaining QoS assurances in a communications network for different types of data traffic, including, for example, voice over Internet Protocol (VoIP) (Hares, ¶¶ 21–25 and 30). Specifically, Hares teaches analyzing response time metrics such as "network delay versus server delay," "response time of servers," "aggregate delay for packets," "normalized delays (with data latency removed)," and "Round Trip Time of packets (which may be used to determine jitter and delay)" (Hares, ¶¶ 65–70). Hares further teaches that data for certain applications requires specific performance levels for different metrics (*see* Hares, Table 1). For example, VoIP data requires "High" performance for "Latency" and "Jitter" (*id.*).

We are not persuaded by Appellants' argument that Wrenn's avoiding "routes that are unreliable, congested, or slow" fails to teach the claimed "metric being one of plural metrics" because "unreliable," "congested," and "slow" are "varying degrees of quality, but not metrics in of themselves" (App. Br. 11; *see also* Reply Br. 2–3). We agree with the Examiner that "unreliable," "congested," and "slow" can indeed be considered distinct metrics (Ans. 20). And in any case, we find Hares also teaches multiple metrics for measuring the quality of a route, as mentioned above (Hares, ¶¶ 65–70).

We are also not persuaded by Appellants' argument that the Examiner erred in finding Hares teaches types of communication as opposed to the claimed "content of the communication" (App. Br. 11). We find Hares' VoIP data corresponds to the claimed "content of the communication" because VoIP data represents specific content, i.e., human speech. Appellants' Reply Brief argument that Hares does not teach "anything about the metric being one of plural metrics that is selected based on content of the communication" (Reply Br. 4) also fails to persuade us. By disclosing that VoIP data requires a "High" level of performance for a metric such as "Latency," (*see* Hares, Table 1), Hares would have suggested using that metric in routing VoIP data.

Accordingly, we find Hares' teaching that particular application data, such as VoIP data, requires a "High" level of performance for a given metric, such as "Latency," would have suggested to one of ordinary skill in the art to determine whether a route in Wrenn's routing system met the metric, where the metric was one of multiple metrics selected based on the content—VoIP—being communicated. Thus, we conclude the combination of Hares with Wrenn meets the disputed claim 1 limitation "determining whether the route through the network meets a metric, the metric being one of plural metrics that is selected based on content of the communication."

We are not persuaded the Examiner engaged in improper hindsight reasoning by combining Hares with Wrenn (*see* App. Br. 14). The Examiner states that both Wrenn and Hares relate to the field of packet-switched communications and that one of ordinary skill in the art would have combined the references because substituting metrics from one network in another similar network would have been obvious (*see* Final Act. 8; Ans. 24). This conclusion is supported by the Supreme Court's decision in *KSR*

Int'l Co. v. Teleflex Inc., which stated "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." 550 U.S. 398, at 417 (2007). Here, we find one of ordinary skill in the art would have determined whether a route for a communication in Wrenn's system met a certain metric selected based upon the content of the communication in view of Hares' teaching that data for applications such as VoIP requires a "High" level of performance for "Latency" (Hares, Table, 1). Such combination would require no more than "the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at 418. Moreover, Appellants have not shown that adding Hares' suggested feature of selecting a metric for a route based on the content of a communication to Wrenn's system "was uniquely challenging or difficult for one of ordinary skill in the art." *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Rather, both references relate to maintaining the route quality for traffic in similar types of networks (*see* Wrenn, ¶ 56; Hares, ¶¶ 21–25), and implementing a QoS technique from one network in the other network would have been well within the ordinary skill in the art.

We are, therefore, not persuaded the Examiner erred in rejecting claim 1, and claims 2, 4–13, 15–24, 26–31, 33–47, and 49–62 not specifically argued separately. Although nominally argued separately, Appellants rely on similar arguments for claim 63 as presented for claim 1 (*see* App. Br. 15–17). We are thus also not persuaded the Examiner erred in rejecting claim 63.

CONCLUSION

The Examiner did not err in rejecting claims 1, 2, 4–13, 15–24, 26–31, 33–47, and 49–63 under 35 U.S.C. § 103(a).

DECISION

For the above reasons, the Examiner's rejection of claims 1, 2, 4–13, 15–24, 26–31, 33–47, and 49–63 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED